

REVISION OF THE GENUS PAROPSIS.

BY REV. T. BLACKIURN, B.A., CORRESPONDING MEMBER.

PART II.

TABULATION OF THE SPECIES FORMING SUBGROUP IV. (OF GROUP III.)

- *A. Prothorax distinctly explanate at sides.
- B. Subhumeral depression present.
 - C. Elytral verrucæ concolorous with derm,
closely set in regular series and not large.
 - D. Marginal part of elytra well defined near
apex, with a distinct sulculus..... *castanea*, Marsh.
 - DD. Marginal part of elytra scarcely distinct
from the discal part..... *catenata*, Chp.
 - CC. Elytral verrucæ not as C.
 - D. The elytral verrucæ normal (small and but
little elevated).
 - E. Prothorax widest close to base, very
strongly narrowed in front..... *tuberculata*, Chp.
 - EE. Prothorax widest not much behind
middle, not very strongly narrowed
in front..... *inops*, Blackb.
 - DD. The elytral verrucæ large and prominent
(concolorous with derm)..... *impressa*, Chp.
- AA. Prothorax not (or scarcely) explanate at sides.
 - B. The punctures of the elytra run evenly over
the verrucæ, which are scarcely elevated.
 - C. The suture broadly black in its front one-
third..... *blanda*, Blackb.
 - CC. The suture without marking..... *punctipennis*, Blackb.
 - BB. The verrucæ unpunctured or nearly so.
 - C. Elytra not having a sharply defined discal
transverse wheal-like ridge.
 - D. Subhumeral depression present.
 - E. Elytral punctures almost lost in the
close rugulosity of interstices; post-
basal impression very slight *creberrima*, Blackb.

* Sides of prothorax only very feebly explanate in *tuberculata* ♀.

- EE. Elytral punctures more distinct than the rugulosity of the interstices.
- F. Elytral margins widely and strongly out-sloped..... *versuta*, Blackb. —
- FF. Elytral margins very little out-sloped..... *papulosa*, Er.
- DD. Subhumeral depression wanting.
- E. Elytral interstices but little rugulose, at least not to the extent of obscuring the punctures and verrucæ.
- F. Elytra (at least on hinder part) studded with sharply defined isolated bead-like verrucæ.
- G. The elytral verrucæ small.
- H. The elytral puncturation fairly strong and not particularly close.
- I. The postbasal impression of elytra not particularly strong and not at all defined behind.
- J. The humeral calli dark and not particularly small..... *verrucosa*, Marsh.
- JJ. The humeral calli small and pale ferruginous in colour.
- K. Form subcircular, marginal part of elytra strongly out-turned..... *Adelaidæ*, Blackb.
- KK. Form ovate (not nearly subcircular), marginal part of elytra but little out-turned..... *prodroma*, Blackb.
- II. The postbasal impression of elytra very strong and from a certain point of view defined behind by a slight ridge..... *cygnicola*, Blackb.
- HH. The elytral puncturation notably finer and closer.
- I. The marginal part of the elytra (especially near apex) out-turned and well-defined *brevissima*, Blackb.



- II. The marginal part of the
elytra scarcely distinct
from the discal..... *semiglobosa*, Chp.
- GG. The verrucæ notably larger
than in the allied species..... *nodosa*, Chp.
- FF. The hinder part of the elytra not
studded with isolated bead-like
conspicuous verrucæ.
- G. Size very small (Long. less than
 $2\frac{1}{2}$ lines)..... *scalaris*, Chp.
- GG. Size much larger (Long. $3\frac{1}{2}$ lines
or more)..... *vulpina*, Blackb.
- EE. Elytral interstices closely rugulose,
concealing the puncturation..... *fumata*, Blackb.
- CC. Elytra having a sharply defined discal
transverse wheal-like ridge.
- D. The discal ridge of dark colour.
- E. Prothorax very strongly transverse,
with strongly rounded sides..... *Carpentariæ*, Blackb.
- EE. Prothorax much less transverse and
with its sides much less strongly
rounded..... *bicolora*, Blackb.
- DD. The discal ridge concolorous with
general surface of elytra.
- E. Prothorax evidently explanate at the
sides..... *vibex*, Blackb.
- EE. Prothorax not at all explanate at the
sides..... *incurva*, Clk.

P. INOPS, sp.nov.

Late subovata, valde convexa, altitudine majori (a latere visa)
ante elytrorum marginem medium posita; minus nitida;
rufo-ferruginea, corpore subtus nigricanti, verrucis piceis,
prothorace utrinque macula laterali et (nonnullorum exem-
plorum) macula discoidali piceis ornato, antennis apicem versus
infuscatis; capite crebre subfortiter subrugulose punctulato;
prothorace quam longiori ut paullo magis quam $2\frac{1}{3}$ ad 1
latiori, ab apice paullo ultra medium dilatato, pone apicem
transversim impresso, crebre vix aspere minus fortiter (ad
latera grosse rugulose) punctulato, lateribus fortiter arcuatis

late minus leviter deplanatis, angulis posticis rotundatis; scutello sat levi; elytris sub callum humeralem leviter depressis, pone basin late minus distincte impressis, crebre fortius subseriatim (ad latera multo magis, postice minus, fortiter) punctulatis, verrucis nonnullis (præsertim postice) nitidis seriatim instructis, interstitiis antice leviter (postice vix) rugulosis, parte marginali sat lata a disco (per sulculum vix continuum) divisa, calli humeralis margine interno a sutura quam ab elytrorum margine laterali vix magis distanti; segmento ventrali basali crebrius fortiter punctulato. Long. 4, lat. $3\frac{1}{5}$ lines.

The conspicuous round blackish spot (which seems to be constant) on either side of the prothorax accompanied by more or less distinct traces of a smaller spot half-way between it and the middle of the segment distinguishes this species from most that it resembles in other respects. It is also notable for the well elevated though not large verrucæ (some notably smaller than others) which are sparsely distributed over the elytra and for the shape of its prothorax, which is not much narrower in front than at the base and has its greatest width very little behind the middle. The sexes scarcely differ, except in the characters common to the genus and in the male being somewhat more decidedly ovate than the female.

N.S. Wales; taken by Mr. Lea near Queanbeyan.

P. PUNCTIPENNIS, sp. nov.

Sat late ovata; valde convexa; altitudine majori (a latere visa) ante elytrorum marginem medium posita; minus nitida; supra obscure rufa, capite antice et postice nigro, prothorace nigro quadrimaculato (maculis arcuatim dispositis), scutello piceo, elytris nigro-verrucosis; subtus nigro-picea (abdomine plus minusve pallidiori), antennis pedibusque rufis, his plus minusve picescentibus; capite sat crebre subfortiter punctulato; prothorace quam longiori ut $2\frac{3}{4}$ ad 1 latiori, ab apice sat longe ultra medium dilatato, pone apicem transversim vix impresso, ut caput (ad latera grosse rugulose) punctulato, lateribus



arcuatis haud deplanatis, angulis posticis rotundato-obtusis; scutello sat lævi; elytris sub callum humeralem vix depressis, pone basin vix impressis, crebre subfortiter minus seriatim sat æqualiter punctulatis, verrucis numerosis (his sat confuse dispositis, ut superficies punctulatis, vix elevatis) instructis, interstitiis minus rugulosis, parte marginali a disco vix distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali sat multo magis distant; segmento ventrali basali subfortiter (maris quam feminae minus crebre) punctulato. Long. $3\frac{3}{4}$, lat. 3 lines.

Easily distinguished from nearly all its congeners by its elytral puncturation being continuous over the surface of the scarcely elevated verrucæ. I have before me an example in which the dark markings of the prothorax are wanting and another in which the elytral verrucæ are distinctly elevated, but I think them mere varieties. The external spots on the prothorax are on the basal (and near the lateral) margins, the other two on either side of the middle of the disc. There is no notable difference between the sexes other than the usual ones.

N.S. Wales; taken by Mr. Lea: also taken in Victoria by Miss Waterhouse.

P. BLANDA, sp. nov.

Præcedenti (*P. punctipennis*) affinis; etiam magis convexa; prothoracis partibus piceis valde disparibus, elytrorum sutura antice late nigra (colore nigro ante medium suturæ dilatato) et disco maculis nigris plus minusve variegato. Long. $3\frac{3}{4}$, lat. 3 lines.

This insect does not appear to be a mere variety of *punctipennis*, though unquestionably very close to it. It is to be noted that the two examples before me were taken in the far north of N.S. Wales, while those of *punctipennis* are all from localities south of Sydney. The markings of the prothorax are too widely different to be only a development of colour. In the most strongly marked *punctipennis* these consist of four conspicuous dark spots placed in the line of a curve with its two extremities on the base; in *blanda* the prothorax is best described as black

with a narrow testaceous rim along the sides and front, this rim much dilated in the middle of the front and there narrowly connected with a large testaceous blotch on the middle of the base. In no example with the prothoracic markings of *punctipennis* is there any dark colouring on the elytra (except the verrucæ); but in both the specimens of *blanda* the suture is broadly black from the base to nearly the middle of its length, with a small dilatation round the scutellum, a larger one a little behind it, and a still larger one at the extremity of the dark colouring, while both examples have some (one more than the other) black blotches on the disc of the elytra. Great as are these differences of colour and markings, I should nevertheless not think it impossible that the two forms might represent one species were it not that *blanda* is a markedly more convex species, the length of its elytra viewed from the side being only half again their height, while in *punctipennis* their length is fully once and three-quarters their height, the elytra in the former species being much more gibbous behind the scutellum than in the latter.

N.S. Wales; Richmond River, &c.; taken by Mr. Lea.

P. CREBERRIMA, sp. nov.

Late subovata, valde convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita; subnitida; rufo-vel piceo-ferruginea, elytris vittis nonnullis piceis abbreviatis ornatis, capite (nonnullorum exemplorum) piceo-bimaculato; hoc minus crebre minus fortiter punctulato; prothorace quam longiori ut $2\frac{2}{3}$ ad 1 latiori, ab apice longe ultra medium dilatato, pone apicem transversim impresso, crebre subtilius minus æqualiter (ad latera grosse rugulose) punctulato, lateribus sat arcuatis vix deplanatis, angulis posticis rotundatis; scutello haud vel vix punctulato; elytris sub callum humeralem minus distincte depressis, pone basin impressis, sat crebre subseriatim (latera versus paullo magis fortiter) punctulatis, verrucis numerosis subseriatis sat æqualiter dispositis instructis, interstitiis confertim rugulosis (sicut

puncturæ vix perspicuæ sunt), parte marginali latissima oblique extrorsum directa a disco sat distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali haud magis distante; segmento ventrali basali subtilius punctulato. Long. 4, lat. $3\frac{1}{5}$ lines.

The vittæ on each elytron are two short ones on the front part of the disc placed side by side and a longer one on the hinder part of the lateral margin of the disc; in some examples they are scarcely traceable. The species is readily distinguishable among its near allies by the close rugulosity of its elytra by which the puncturation is rendered very inconspicuous. There is scarcely any difference between the male and female except in characters common to the genus.

S. and W. Australia.

P. VERSUTA, sp.nov.

Late subovata (♀ ovalis), valde convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita; subnitida; rufo-ferruginea, sternis elytrorum verrucis et (nonnullorum exemplorum plus minusve) antennis abdomine maculisque in capite duabus piceis vel nigropiceis; capite crebre subtilius punctulato; prothorace quam longiori ut $2\frac{1}{2}$ ad 1 latiori, ab apice longe ultra medium dilatato, pone apicem transversim impresso, crebre minus fortiter (ad latera grosse rugulose) punctulato, lateribus sat arcuatis haud deplanatis, angulis posticis nullis; scutello laevi; elytris sub callum humeralem leviter depressis, pone basin late transversim minus leviter impressis, minus fortiter subseriatim (ad latera minus crebre paullo magis fortiter) punctulatis, verrucis parvis numerosis confuse instructis, interstitiis sat rugulosis, parte marginali sat lata oblique extrorsum directa a disco (per sulculum continuum postice sat profundum) bene divisa, calli humeralis margine interno a sutura quam ab elytrorum margine laterali vix magis distante; segmento ventrali basali subcrebre minus fortiter punctulato. Long. $3\frac{4}{5}$, lat. $2\frac{4}{5}$ lines.

The best distinctive characters of this species among its near allies seem to be the strongly defined postbasal wide transverse impression of its elytra, which in some examples is even limited behind by an indication of a raised margin (when looked at from a certain point of view) suggestive of the transverse wheal-like ridge that characterises *P. transversalis*, &c., and the well-marked longitudinal depression between the discal and marginal parts of the elytra. In addition to the usual sexual distinctions, I find that in the male the greatest width of the elytra is distinctly nearer the apex than in the female, and that the female is more strongly convex than the male. In one example the elytra bear some ill-defined piceous blotches.

Victoria (Alpine region) and N.S. Wales.

P. ADELAIDE, sp. nov.

Late ovata, valde convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita; modice nitida; rufo-ferruginea, antennis apicem versus obscuris; ex elytrorum verrucis nonnullis piceis; capite sat crebre minus fortiter punctulato; prothorace quam longiori ut $2\frac{2}{3}$ ad 1 latiori, ab apice fere ad basin dilatato, pone apicem transversim vix impresso, sat crebre subtilius (ad latera magis grosse) punctulato, lateribus sat arcuatis vix deplanatis, angulis posticis nullis; scutello vix vel sparsim subtiliter punctulato; elytris haud sub callum humeralem depressis, pone basin vix impressis, subseriatim sat fortiter (latera versus magis grosse apicem versus magis subtiliter) punctulatis, verrucis parvis sparsis praesertim in parte posteriori positae, interstitiis antice vix (postice manifeste) rugulosis, parte marginali latissima a disco (per sulculum ante medium vix interruptum) divisa, calli humeralis margine interno a sutura quam ab elytrorum margine laterali haud magis distant; segmento ventrali basali fortius minus crebre punctulato. Long. 3, lat. $2\frac{1}{2}$ lines.

A small species of subglobular appearance, of a uniform reddish-ferruginous colour except the apical part of the antennae and some of the verrucae (the latter small and thinly scattered mostly

over the apical half of the elytra) which are darker. There is little noticeable difference between the sexes.

S. Australia; Adelaide district.

P. PRODROMA, sp. nov.

♂. *P. brevissimae* affinis; minus brevis; sternis, elytrorum verrucis, et antennis apicem versus picescentibus; capite minus confertim minus subtiliter punctulato; prothoracis lateribus subdilatatis; elytris fortiter punctulatis, pone basin vix impressis, interstitiis latera versus rugas transversas (certo adspectu) simulantibus, parte marginali a disco vix distincta; cetera ut *P. brevissima*. Long. 3, lat. $2\frac{2}{3}$ lines.

The lateral portions of the prothorax in this species certainly do not continue the convexity of the disc so evenly as in *P. verrucosa*, *brevissima*, &c. Apart from the character already referred to, it is very near *P. verrucosa*, Marsh., but differs in the markedly coarser puncturation of its elytra, in the marginal part of its elytra considerably less directed obliquely outward, and in its humeral calli concolorous with the derm. It also somewhat resembles *P. Adelaide*, but is a less wide species with the sides of its prothorax scarcely explanate and its elytral puncturation notably coarser. The transversely wrinkled appearance of the elytra near the lateral margins seems to be a good distinctive character.

Victoria; unique in my collection.

P. CYGNICOLA, sp. nov.

♀. Late subovata, valde convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita; sat nitida; testaceo-ferruginea, sternis (ex parte) tarsis (ex parte) antennis apicem summum versus et elytrorum verrucis picescentibus; capite confertim subtilius punctulato; prothorace quam longiori ut $2\frac{2}{3}$ ad 1 latiori, ab apice paullo ultra medium dilatato, pone apicem transversim impresso, ut caput (ad latera grosse rugulose) punctulato, lateribus sat fortiter arcuatis haud deplanatis, angulis posticis nullis;

scutello nitido fere lævi; elytris sub callum humeralem haud depressis, pone basin transversim fortiter impressis, subfortiter subseriatim (ad latera magis, postice minus, fortiter) punctulatis, verrucis sat numerosis minus parvis (in parte basali impressa carentibus) vix seriatim instructis, interstitiis vix (postice magis distincte) rugulosis sed hic illic ut rugæ transversæ certo adspectu apparentibus, parte marginali sat lata a disco (per sulculum subobsoletum sat continuum) sat distincta extrorsum oblique subfortiter directa, calli humeralis margine interno a sutura quam ab elytrorum margine laterali haud magis distante; segmento ventrali basali crebre minus fortiter punctulato. Long. 3 (vix), lat. $2\frac{2}{3}$ lines.

A species of inconspicuous appearance considerably resembling *P. verrucosa* and its allies, but differing from them *inter alia* by the considerably more rugulose interstices (especially behind) of the elytral interstices and by the more strongly marked postbasal impression of its elytra. Also near *papulosa*, Er., from which it differs *inter alia* by the very much closer and finer puncturation of its prothorax.

W. Australia; Swan River; taken by Mr. Lea.

P. BREVISSIMA, sp. nov.

♂. Latissime subovata, valde convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita; subnitida; tota rufo-ferruginea; capite confertim subtilius subaspere punctulato; prothorace quam longiori ut $2\frac{1}{2}$ ad 1 latiori, ab apice fere ad basin dilatato, pone apicem transversim impresso, crebrius sat subtiliter (ad latera magis grosse) punctulato, lateribus minus arcuatis haud deplanatis, angulis posticis rotundatis; scutello sparsim subtilius punctulato; elytris sub callum humeralem haud depressis, pone basin transversim manifeste impressis, crebre subtilius subseriatim (ad latera paullo magis fortiter) punctulatis, verrucis modicis in parte postica subseriatim instructis, interstitiis vix rugulosis, parte marginali sat lata a disco antice vix postice (per

sulculum sat impressum) manifeste distincta, calli humeralis margine interno a sutura et ab elytrorum margine laterali aequidistanti. Long. $2\frac{1}{2}$, lat. $2\frac{1}{5}$ lines.

The unique example of this insect differs from all its near allies in its uniform ferruginous colour, even the elytral verrucae being quite concolorous. It is very near *verrucosa*, Marsh., of which (thanks to Mr. Masters!) I have seen the example in the old Macleay collection (probably the type), but differs from it (apart from colour) by the considerably finer puncturation of its elytra and the presence of a well marked transverse postbasal impression on the same which is from a certain point of view limited behind as in *P. versuta*. It is also to be noted that the intermediate verrucae of the prothorax are distinctly (though not strongly) manifest in this species.

N.S. Wales.

P. VULPINA, sp. nov.

Subglobula, valde convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita: modice nitida; ferruginea, antennis apicem versus (his elongatis) sternis et nonnullorum exemplorum maculis nonnullis in prothorace positis infuscatis; capite confertim subtilius punctulato; prothorace quam longiori ut $2\frac{3}{4}$ ad 1 latiori, ab apice paullo ultra medium dilatato, pone apicem transversim impresso, crebre minus fortiter (ad latera rugulose grossissime) punctulato, lateribus sat fortiter arcuatis haud deplanatis, angulis posticis rotundatis; scutello vix manifeste punctulato; elytris sub callum humeralem haud depressis, pone basin haud impressis, crebre minus fortiter vix seriatim (ad latera multo magis grosse, postice sat subtiliter) punctulatis, verrucis, numerosis parvis inconspicuis instructis, interstitiis leviter subreticulatim rugulosis, parte marginali a disco vix (postice per sulculum obsolete impressum) distincta, calli humeralis parum elevati margine interno a sutura quam ab elytrorum margine laterali vix magis distant, segmento ventrali basali sparsius minus fortiter punctulato. Long. $3\frac{1}{2}$ -4, lat. 3 - $3\frac{2}{5}$ lines.

A species very unlike any other known to me (among those having the elytra highest considerably in front of the middle) on account of the close rather fine puncturation of the elytral disc and the extreme inconspicuousness of the elytral verrucæ which are concolorous (or nearly so) with the derm. In these respects and in colouring it resembles *P. alta* and *inornata*, which, however, belong to the subgroup having the greatest height of the elytra much further back. I do not find any noteworthy sexual differences beyond those common to the genus.

W. Australia; Swan River; taken by Mr. Lea.

P. FUMATA, sp. nov.

♂. Late subovata, valde convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita; modice nitida; ferruginea, in capite maculis 2 in prothorace verrucis externis et in elytris maculis vel vittis nonnullis indeterminatis verrucarumque nonnullis piceis, corpore subtus plus minusve infuscato; capite sat crebre fortius punctulato; prothorace quam longiori ut $2\frac{2}{3}$ ad 1 latiori, ab apice longe ultra medium dilatato, pone apicem transversim impresso, sat inæquali, crebre subfortiter subrugulose (ad latera subgrosse) punctulato, lateribus modice arcuatis haud deplanatis, angulis posticis rotundatis; scutello sparsissime vel vix punctulato; elytris sub callum humeralem haud depressis, pone basin haud impressis, subseriatim minus fortiter subæqualiter punctulatis, verrucis parvis sat numerosis minus distinctis vix seriatim instructis, interstitiis rugulosis hic illic transversim rugiformibus et puncturas nonnihil obscurantibus, parte marginali sat lata a disco (per sulculum subobsoletum ad apicem continuum) sat manifeste divisa, calli humeralis margine interno a sutura quam ab elytrorum margine laterali vix magis distant; segmento ventrali basali sparsim subtilius punctulato. Long. 3, lat. $2\frac{2}{3}$ lines (vix).

Notable for the rugulose interstices of its elytra which considerably obscure the puncturation and tend to run here and there into short transverse wrinkles. Resembles *creberrima* in the above

respects but is very much smaller, with the marginal part of the elytra narrower and less out-turned, and having the lateral verrucæ of the prothorax conspicuously piceous in colour; also of less wide form.

S. Australia; Adelaide district, Freeling, &c.

P. CARPENTARLÆ, sp.nov.

♀. Modice lata, valde convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita; minus nitida; pallide ferruginea; maculis in capite 2, notis nonnullis indeterminatis in prothorace elytris sternisque, et elytrorum verrucis vibicibusque, infuscatissimis vel piceis; capite sat fortiter sat crebre punctulato: prothorace quam longiori ut $2\frac{2}{3}$ ad 1 latiori, ab apice paullo ultra medium dilatato, pone apicem haud transversim impresso, verrucis 4 sat manifestis transversim instructo, fortiter sat rugulose punctulato, lateribus fortiter arcuatis vix deplanatis, angulis posticis rotundatis; scutello fere ut prothorax punctulato; elytris sub callum humeralem haud depressis, pone basin transversim impressis, parte impressa postice ruga elevata transversa elongata marginata, sat fortiter minus crebre subseriatim (ad latera paullo magis, postice paullo minus fortiter) punctulatis, verrucis sat numerosis instructis (ex his nonnullis vibices breves transversas simulantibus), interstitiis haud rugulosis, parte marginali sat lata a disco (per sulcolum continuum) modice distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali paullo magis distante; segmento ventrali basali subgrosse minus crebre punctulato. Long. $2\frac{4}{5}$, lat. 2 lines.

This species is the only *Paropsis* of this subgroup that I have seen having in combination a sharply defined elongate wheal-like transverse ridge of dark colour on each elytron, and the prothorax without any well-defined markings. It may be noted also that the sides of the prothorax and elytra are of more pallid colour than the disc.

N. Queensland; sent to me by Mr. French.

P. BICOLORA, sp.nov.

Præcedenti (*P. Carpentarie*) affinis; differt prothorace utrinque macula magna aterrima ornato, paullo minus transverso, minus grosse minus rugulose punctulato, lateribus multo minus arcuatis nullo modo deplanatis; elytrorum parte marginali a disco vix distincta; segmento ventrali basali minus fortiter punctulato; cetera ut *P. Carpentarie*. Long. $2\frac{4}{5}$, lat. 2 lines.

Very near the preceding, but certainly I think distinct on account of its very differently shaped and sculptured prothorax. It is one of the prettiest species of this subgroup, all its markings being of a deep black colour, in strong contrast to the pallid derm. There is little difference between the sexes apart from the characters common to the genus.

N. S. Wales; Whitton; sent by Mr. Lea.

P. VIBEX, sp.nov.

Sat late ovata; valde convexa; altitudine majori (a latere visa) ante elytrorum marginem medium posita; modice nitida; rufo-ferruginea, elytris antice (et postice ad disci marginem) indeterminate et incerte picescentibus; capite sat crebre subaspere vix fortiter punctulato; prothorace quam longiori fere ut $2\frac{1}{2}$ ad 1 latiori, ab apice ultra medium dilatato, pone apicem vix impresso, inæquali, minus crebre minus fortiter (ad latera vix grosse) punctulato, lateribus minus arcuatis vix deplanatis, angulis posticis rotundatis; scutello crebre minus subtiliter punctulato; elytris haud sub callum humeralem depressis, pone basin transversim impressis, subseriatim sat crebre minus fortiter (apicem versus magis subtiliter, ad latera paullo magis grosse) punctulatis, verrucis sat numerosis instructis (his in parte impressa postbasali carentibus, pone hanc partem ut ruga transversa fere a sutura ad marginem lateralem continua confluentibus), interstitiis vix rugulosis, parte marginali a disco vix distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali haud magis distant; segmento ventrali basali sparsim leviter punctulato. Long. $2\frac{4}{5}$, lat. $1\frac{4}{5}$ lines.

The transverse wheal-like ridge crossing the elytra somewhat in front of the middle is a character at once separating this species from all but a small number of its congeners. Several of the species described by the Rev. H. Clark from W. Australia seem from their descriptions to present this character; but although I doubt whether I have seen any of them they are evidently distinct from the present one, being of different size or colouration. In the present insect there are several short transverse ridges behind the long one, and the verrucæ and ridges are all quite concolorous with the derm. The dark markings on the elytra are not at all sharply defined, and consist (in the examples before me) of a blotch on each elytron near the scutellum, another on the humeral callus and an obscure vitta near the apex on the external margin of the disc. There is little noticeable difference between the sexes. It is perhaps just possible that this insect is *P. nervosa*, Clk., but as that species is described as having a large quadrate black spot on the prothorax on either side, of which there is no trace in the examples before me, identity seems very improbable.

W. Australia; Geraldton; sent by Mr. Lea.

GROUP IV.

This is a small group that Dr. Chapuis included in his Group iv. (which otherwise is equivalent to my Group iii.) as consisting of aberrant forms. But as that learned author constituted it, a good half of its species are much more genuinely to be considered as aberrant forms of his Group iii. (my Group v.). I am very much dissatisfied with the existence of this group, but nevertheless its recognition seems to be essential to the classification of the groups on characters of sculpture, which (as I have already remarked) seems to me to be the only workable classification. It will be remembered that (*vide* P.L.S.N.S.W. 1896, p. 638) the present aggregate differs from Group i. by its prothorax neither bisinuate on the sides nor mucronate in front, from Group ii. by its elytral sculpture being linear in arrangement, from Group iii. by its elytra not being verrucose, and from Group v. by the series of punctures on its elytra not being 10 in number. The first six

in the species tabulation are obviously nothing but members of Group iii. in which the verrucæ are wanting. The remainder, however, have no connection with those six except by the accidental circumstance of having on their elytra rows of punctures which are not 10 in number; they are undoubtedly simply members of Group v. in which the 10 series are either so much interrupted or out of symmetry or so much obscured by interstitial punctures as to be untraceable (indeed one or two of them—*e.g.*, *M. ruscum*, Boh.—might almost as well stand in Group v. as Group iv., inasmuch as with careful attention the 10 series can be made out scarcely less distinctly than in several—*e.g.*, *jucunda*, Chp.—which Dr. Chapuis placed in the other group). Nearly all of them are small nitid species with brightly coloured sharply defined markings.

In Group iv. I place 27 species. Of these it is not clear whether *multiseriata*, Chp., belongs to the allies of Group iii or of Group v. Of the remainder 7 belong to the former aggregate and 19 to the latter. Of the 7 two are new species described below; one (*P. obscurella*, Chp., from Central Australia) I am confident I have not seen; and the other four I have been able to identify confidently, though I have not seen an authentic type of any. Of the 19 species forming the aggregate allied to Group v., there are three that I am confident I have not seen—viz., *spectabilis*, Chp.; *pallidula*, Chp.; and *livida*, Chp.; three are new species described below; three are represented in my collection by authentic types; one is a species I have previously described myself; and the remaining nine I have been able to identify confidently by means of the descriptions. As in the previous tabulations, the names of the species identified by comparison with descriptions are printed in italics.

There may of course be some species belonging to this group among those of Boisduval, &c., which Dr. Chapuis considered to be so insufficiently described that they could not be referred to any group, and which I have previously referred to.

In most of the species of this group the markings are sufficiently well-defined and constant to allow of their being used as reliable characters in tabulation.

TABULATION OF THE SPECIES FORMING GROUP IV.

- A. Elytra with a distinct subbasal impression.
 - B. Lateral margins of prothorax quite strongly explanate *areola*, Chp.
 - BB. Lateral margins of prothorax not or scarcely explanate.
 - C. The subbasal impression of the elytra extremely strong..... *sublineata*, Bohem.
 - CC. The subbasal impression of the elytra very feeble.
 - D. Size very small. The scutellum punctured simplex, Blackb.
 - DD. Size much larger. Scutellum unpunctured and very nitid..... *crebra*, Blackb.
 - AA. Subbasal impression of elytra wanting or almost wanting.
 - B. Elytral edging of scutellum convex and ridge-like.
 - C. The spots on the prothorax run at equal intervals transversely across the middle line..... *orbicularis*, Chp.
 - CC. Interval between the two intermediate spots of the prothorax much greater than between the intermediate and lateral spots..... *diffusa*, Chp.
 - BB. Elytral edging of scutellum quite flat.
 - C. Marginal part of elytra near apex strongly defined and out-turned and separated from disc by a well-defined sulculus.
 - D. Elytral puncturation more or less fine.
 - E. Prothorax black or with only a narrow testaceous lateral edging *tetraspilota*, Chp.
 - EE. Prothorax with sharply limited black and testaceous markings (the latter not limited to the lateral edges).
 - F. Elytra with dark markings on a testaceous surface.
 - G. Elytra not having a broad black discal vitta.

- H. The postmedian marking of the elytra consists of a large V-shaped black blotch..... *lachesis*, Stål.
- HH. Elytra not marked as H..... *basicollis*, Chp.
- GG. Elytra with a broad black discal vitta reaching from the base nearly to the apex..... *pulchella*, Chp.
- FF. Elytra black with a testaceous (entire or interrupted) spot..... *picturata*, Chp.
- DD. Elytral puncturation much coarser and deeper.
- E. Prothorax without defined markings *perplexa*, Chp.
- EE. Prothorax with sharply limited black markings..... *quadrizonata*, Blkb.
- CC. Marginal part of elytra near apex not (or scarcely) distinguishable from the discal part.
- D. Elytra variegated with light and dark colouring.
- E. The dark colouring not limited to the suture and humeral callus.
- F. The punctuation of the elytra runs evenly over the colours.
- G. Upper surface testaceous, with darker markings.
- H. Prothorax without defined markings..... *rubiginosa*, Chp.
- HH. Prothorax with two sharply defined black spots..... *nigropicta*, Clk.
- GG. Upper surface black, with some reddish markings..... *rufopicta*, Blackb.
- FF. The punctuation of the elytra obsolete on the more lightly coloured parts.
- G. The lighter colouring of the elytra takes the form of numerous spots and blotches..... *tigrina*, Chp.
- GG. The lighter colouring takes the form of longitudinal vittæ *eyrensis*, Blackb.

- EE. The dark colouring of the elytra
 limited to the suture and humeral
 callus *suturella*, Chp.
 DD. Elytra entirely black..... tarsalis, Blackb.
 DDD. Elytra entirely testaceous..... *M-fuscum*, Bohem.

P. SIMPLEX, sp.nov.

Sat late ovata; nitida; sat convexa; altitudine majori (a latere visa) contra elytrorum marginem medium posita; tota rufo-brunnea; capite crebre subfortiter punctulato; prothorace quam longiori ut $2\frac{5}{8}$ ad 1 latiori, pone apicem transversim impresso, ab apice sat longe ultra medium dilatato, sat crebre subfortiter (ad latera grosse rugulose) punctulato, lateribus modice arcuatis laud deplanatis, angulis posticis obtusis; scutello punctulato; elytris sub callum humeralem vix depressis, pone basin transversim leviter impressis, crebrius subfortiter subseriatim punctulatis, parte marginali sat angusta (hac postice oblique extus sat fortiter directa) a disco modice distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali paullo magis distant; segmento ventrali basali sparsius sat subtiliter punctulato. Long. $2\frac{2}{5}$, lat. $1\frac{9}{10}$ lines.

A small species with much general resemblance to those of the preceding group, but without elytral verrucae. There is little difference between the sexes apart from the characters common to all *Paropses*.

N. W. Australia; sent by Mr. Masters.

P. CREBRA, sp.nov.

Sat late ovata; sat nitida; sat convexa; altitudine majori (a latere visa) contra elytrorum marginem medium posita; rufo-brunnea, sternis antennarum parte apicali et notulis indeterminatis in prothorace nonnullis infuscatis; capite crebre subfortiter punctulato; prothorace quam longiori ut $2\frac{1}{2}$ ad 1 latiori, pone apicem vix impresso, ab apice longe ultra medium dilatato, dupliciter (crebrius subtilissime et minus crebre subfortiter, ad latera grosse rugulose) punctu-

lato, lateribus sat fortiter arcuatis haud deplanatis, angulis posticis rotundatis; scutello levi; elytris sub callum humeralem leviter depressis, pone basin transversim minus evidenter impressis, crebrius subfortiter subseriatim (ad latera magis, postice minus, fortiter) punctulatis, parte marginali modice lata (hac postice oblique extus sat fortiter directa) a disco sat distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali vix magis distant; segmento ventrali basali fere levi. Long. $3\frac{1}{2}$, lat. $2\frac{1}{2}$ lines.

Much resembles the preceding species (*P. simplex*) but differs by its considerably larger size, the infuscation of some of its parts (especially a small spot on either side of the middle of the prothorax), the evidently more strongly rounded sides of the prothorax, the elytral puncturation more evidently becoming coarser towards the sides and finer towards the apex, the basal ventral segment almost unpunctured, &c., &c. A specimen in the S. Australian Museum has much more distinct blackish spots on its elytra than any other example that I have seen.

Kangaroo Island; Mr. Tepper, &c.

P. TETRASPILOTA, Chp. (var. *diemenensis*, Blackb.).

The only variety I have seen of this species is a Tasmanian example in the collection of Mr. Simson, of Launceston. As I have not seen a typical example from Tasmania, it is possible that further observation may show this to be a good species, but I do not observe any structural divergence from the type in this unique specimen. Its peculiarities consist in its prothorax having a testaceous edging on either side and the red spots on its elytra being (*a*) a very small spot close to the scutellum and (*b*) another spot very little larger close to the external limit of the disc and a little behind its middle.

P. LACHESIS, Stål.

Among a large number of examples of this species that I have examined I do not find any notable variation except in the intermediate spots on the prothorax being sometimes united and the

surface colour of the elytra being more red in some examples than in others.

P. BASICOLLIS, Chp.

The only variety that I have seen of this species is a very remarkable one that I met with in the Australian Alps (in company with the type), in which the discal spots of the elytra are entirely wanting.

P. PICTURATA, Chp.

This species rarely varies except in the size of the red spot enclosed within the discal black vitta of the prothorax; nevertheless I have an example from Queensland in which the said red spot is enlarged to the extent of interrupting the black vitta so that the latter takes the form of two black spots (one of them basal and quadrate with its front margin emarginate, the other apical and triangular with its base on the front margin of the segment), and the elytral red spot is widely interrupted.

P. PERPLEXA, Chp.

Dr. Chapuis placed this species in his "Groupe ii." I feel no doubt, however, that this was an oversight on his part, as its natural place is obviously among the species which he placed in his "Groupe iv." and it is really very close to *P. rubiginosa*, Chp. I regard it also as allied to *P. orphana*, Chp., and *suturalis*, Germ., although the exigencies of classification require its being widely separated from them on account of the very different sculpture of its elytra.

P. QUADRIZONATA, sp. nov.

Late ovalis, sat convexa, altitudine majori (a latere visa) contra elytrorum marginem medium posita; supra rufa, capite (labro et macula interoculari parva exceptis) prothoracis maculis discoidalibus 4 (transversim positis) et elytrorum notulis nonnullis (sc. regione scutellari, sutura—tota vel in parte—, macula magna basali callum humeralem includenti, maculis 2 paullo pone basin transversim positis, notula falciformi pone medium posita, et macula ante-apicali transversim oblonga) nigris; subtus nigra, pedibus et antennarum parte basali rufis (tibiarum basi nigris); capite minus crebre

dupliciter (subtiliter et sat fortiter) punctulato; prothorace quam longiori ut $2\frac{2}{3}$ ad 1 latiori pone apicem haud impresso, ab apice paullo ultra medium dilatato, sparsius subtilius (ad latera grosse minus sparsim) punctulato, lateribus minus arcuatis haud deplanatis, angulis posticis obtusis; scutello sat levi; elytris sub callum humeralem haud depressis, pone basin haud impressis, sat crebre vix fortiter subseriatim (ad latera paullo magis postice paullo minus, fortiter; intervallis nonnullis sat levibus) punctulatis, parte marginali a disco vix distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali paullo magis distante; segmento ventrali basali sparsius subtilius punctulato. Long. $2\frac{1}{2}$, lat. 2 lines.

A very pretty little species, apparently not variable except in the subapical spot on the elytra being in some examples connected with the suture, and not presenting any unusual sexual distinctions.

Victoria; Alpine region.

P. NIGROPICTA, Clk.

The insect which I cannot doubt is this species does not agree perfectly with Clark's description in respect of its colour and markings. I have examples before me from widely separated districts of Western Australia (including Champion Bay, which seems to have been the locality of the type). The differences are as follows:—Clark especially notes that the labrum is black, which it is not in any of the numerous examples I have seen, and he omits to mention that the post-median fascia is dilated hindward on the suture to join the apical marking (which it is on every example that I have seen). Nevertheless, I regard it as most improbable that there is another species occurring in the same localities as the species before me and so extremely close to it as would be the case if my identification is incorrect. Probably in Clark's examples the labrum had become by some means discoloured, and the other discrepancy no doubt arises from an omission on the part of the describer.

P. RUFOPICTA, Blackb.

It will be well to take this opportunity of mentioning the following characters not enumerated in the original description, viz., greatest height of elytra slightly in front of the middle of the elytral margin as viewed from the side, width of prothorax to length as $2\frac{1}{3}$ to 1, elytra not depressed below the humeral callus and without any subbasal impression, marginal part of elytra very little distinguishable even near the apex from the discal part, humeral callus feebly marked (its inner edge decidedly further from the suture than from the lateral margin of the elytra), basal ventral segment sparsely and somewhat strongly punctulate.

P. EYRENSIS, sp. nov.

- ♂. Subovata; minus lata; nitida; sat convexa, altitudine majori (a latere visa) pone elytrorum marginem medium posita; testaceo-brunnea, capite medio prothorace (transversim sinuatim) elytrorum vittis numerosis et abdomine infuscatis; capite dupliciter (crebrius subtilissime et sparsim subgrosse) punctulato; prothorace quam longiori ut $2\frac{1}{2}$ ad 1 latiori, pone apicem haud impresso, ab apice paullo ultra medium dilatato, subtiliter minus confertim (ad latera sparsim grosse) punctulato, lateribus minus arcuatis haud deplanatis, angulis posticis obtusis; scutello sat levi; elytris sub callum humeralem haud depressis, pone basin haud impressis, inæqualiter sat grosse minus crebre subseriatim punctulatis, parte marginali a disco haud distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali multo magis distant; segmento ventrali basali sparsim leviter punctulato. Long. 2, lat. $1\frac{1}{5}$ lines.

The infusate mark on the prothorax is probably variable; in the type it is a central blotch from either side of which a curved narrow line runs out nearly to the margin (this line is continuous on one side and interrupted on the other). On the elytra the infusate vittæ are of darker colour than the markings of the other parts and may be described as (on each elytron) four pairs of fine lines of which the external three are irregularly dilated and

coalescing for the greater part of their length. The irregularity of the elytral puncturation does not consist in the size of the punctures but in their being placed almost exclusively on the infusate parts of the surface and in their seriate arrangement being here and there considerably confused.

Central Australia; Basin of Lake Eyre.

P. TARSALIS, sp.nov.

♂. Sat late ovalis; modice convexa, altitudine majori (a latere visa) ante elytrorum marginem medium posita; nitida; nigra, antennis (his apice infuscatis) labro mandibulis prosterno medio coxis capiteque subtus testaceis, tarsis rufis; capite crebrius dupliciter (subtiliter et subgrosse) punctulato; prothorace quam longiori duplo latiori, pone apicem haud impresso, ab apice fere ad basin leviter dilatato subfortiter minus crebre (antice magis crebre, ad latera grosse) punctulato, lateribus minus arcuatis haud deplanatis, angulis posticis obtusis sat bene determinatis; scutello lævi; elytris sub callum humeralem vix depressis, pone basin haud impressis, sat fortiter subseriatim punctulatis, parte marginali a disco vix distincta, calli humeralis margine interno a sutura quam ab elytrorum margine laterali paullo magis distant. Long. 2, lat. $1\frac{3}{10}$ lines.

A very distinct species on account of its entirely black upper surface, which is probably constant.

Victoria.

P. M-FUSCUM, Bohem.

This is a variable species in respect of its colouring, the upper surface being of various shades from whitish-yellow to reddish-brown or even dark brown (the latter colour being probably the result of long immersion in spirits), and the underside, femora, and antennæ being more or less infusate or even blackish in parts. It evidently forms a connecting link between the present and the next group of species, having all the facies of the next group, but with the puncturation of its elytra very irregular and, so far as it is seriate, consisting of ten *double* rows of punctures.